ENVIRONMENTAL CHEMISTS

Date of Report: 04/07/99 Date Received: 04/01/99

Project: Metro Self Monitor, PO# M61742

Date Samples Extracted: 04/06/99 Date Extracts Analyzed: 04/06/99

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID		<u>Chromiu</u>	m <u>Copper</u>	<u>Nickel</u>	$\underline{\mathbf{Zinc}}$
M61742		0.24	0.42	0.33	0.11
Method Blan	k	< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 04/07/99 Date Received: 04/01/99

Project: Metro Self Monitor, PO# M61742

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 903141-01 (Duplicate)

				Relative	
	Reporting	Sample	Duplicate	e Percent	Acceptance
Analyte	Units	Result	Result	Difference	Criteria
Chromium	mg/L (ppm)	0.24	0.24	0	0-20
Copper	mg/L (ppm)	0.32	0.32	0	0-20
Nickel	mg/L (ppm)	0.21	0.21	0	0-20
Zinc	mg/L (ppm)	0.06	0.07	15	0-20

Laboratory Code: 903141-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recov	ery % Recover	y Acceptance	
Analyte	Units	Level	Result	MS	MSD	Criteria	RPD
Chromium	mg/L (ppm)	5	0.24	92	91	80-120	1
Copper	mg/L (ppm)	5	0.32	88	87	80-120	1
Nickel	mg/L (ppm)	10	0.21	92	91	80-120	1
Zinc	mg/L (ppm)	5	0.06	94	93	80-120	1

Laboratory Code: Laboratory Control Sample

		Reporting	Spike	% Recovery	% Recover	y Acceptance		
	Analyte	Units	Level	LCS	LCSD	Criteria	RPD	
. 7	Chromium	mg/L (ppm)	5	100	100	80-120	0	
	Copper	mg/L (ppm)	5	100	98	80-120	2	
	Nickel	mg/L (ppm)	10	102	103	80-120	1	
	Zinc	mg/L (ppm)	5	101	103	80-120	2	

FRIEDMAN & BRUYA, INC. 3012 16th Avenue west Seattle, WA 98119-2029 (206) 285-8282 904004 SAMPLE CHAIN OF CUSTODY 3012 16th Avenue West

•							
Send Report To: WS	KAN COO	ex Worle	c	_	F2110	1-	1
Address 628 And	andord to	T	·	Contact_	CARBO	14. 11	son brown
City, State, Zip Sead	He us	98134					
Phone # 206 - 382	5-8349	FAX #	206-3	32-4309	Date_	3-1-9	9
SITE NO.		PROJ	ECT NAME	<u>, </u>	PURC	CHASE ORD	ER#
7238		metro Sel	on b	nido	m 61	747	
SAMPLERS (signature)						ECT LOCAT	TION
							tes.
REMARKS					SAMPLE DIS		
					E-1	se after 30 d	
	•			1	Return	Samples	
	D-1-17"				Call fo	r Instructio	
Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #		Analys Request	
m 6/742	4/1/9 12:30	Ho	/	6(CK	Ce	لدح زيم
		· ·					
				٠,			
			ļ				
_							
SIGNATURE /	1	PRINT NAME	L	COMPANY		Pate	Time
Reliance ished		•	- -	AQ , 7	1	1/1	
Many	- GEKKE	D. A. Thong	معتد	N. W.	3	11/59	1:45pm
Received Muser	mani	D MARET	T	ACW SBI	4	11/99	1:45pm
clip dished by:						,	
Received by:				-			

FORMS/COC

03/18/99

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

April 7, 1999

DUPLICATE COPY

INVOICE #99ACU0407-1

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M61742: Results of testing requested by Gerry Thompson for material submitted on April 1, 1999.

FEDERAL TAX ID(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

April 7, 1999

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on April 1, 1999 from your Metro Self Monitor, PO# M61742 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Manuel Marti Project Manager

Enclosures ACU0407R.DOC